MA 30C(88)-1

Rubber Mechanical Goods

1988

U.S. Department of Commerce
BUREAU OF THE CENSUS

MA30C(88)-1
Issued November 1989

SUMMARY OF FINDINGS

The total value of shipments in 1988 of molded rubber mechanical goods was $2,790.2 million, a 12.1-percent increase from the 1987 figure of $2,489.8 million. Extruded and lathe cut rubber mechanical goods were up 7.2 percent to $917.9 million from the 1987 total of $856.2 million.

The value of shipments of molded, extruded and lathe cut rubber automotive mechanical goods (excluding automotive tubing) increased 10.7 percent in 1988 to $1,815.4 million from the 1987 figure of $1,639.2 million. Extruded tubing was up 18.7 percent in 1988 to $170.9 million from $144.0 million in 1987. Shipments of molded and extruded rubber appliances amounted to $251.5 million in 1988, an 8.4-percent increase from the 1987 figure of $232.0 million. The value of shipments of molded oil and gas machinery and equipment rubber products totaled $79.0 million in 1988, a 33.7-percent increase from the 1987 total of $59.1 million. Transportation (other than automotive) molded rubber products had a 7.8 percent increase to $220.0 million in 1988 from $204.0 million in 1987. Shipments of off-highway machinery and equipment molded rubber products decreased to $186.5 million in 1988 from $192.8 million in 1987. Other molded, extruded and lathe cut rubber mechanical goods (excluding extruding tubing, other) rose 12.2 percent from the 1987 total of $829.2 million to $930.2 million in 1988.

The statistics in this publication are based on a survey of all known manufacturers of molded, extruded and lathe cut rubber mechanical goods and represent total U.S. shipments of these products.

A description of the survey methodology and related information appears of page 3.

Table 1. VALUE OF SHIPMENTS OF MOLDED, EXTRUDED, AND LATHE CUT RUBBER MECHANICAL GOODS: 1980 TO 1988

(Millions of dollars)

Year	Molded	Extruded and lathe cut
1988	2,790.2	917.9
1987	2,489.8	r856.2
1986	2,323.6	738.1
1985	2,226.5	696.7
1984[1]	1,898.5	636.6
1983½[1]	1,725.5	513.3
1982[2]	1,571.2	455.0
1981[1]	1,809.8	402.2
1980[1]	1,551.8	384.2

[r] Revised by 5 percent or more from previously published figures.

[1] Source: Annual Survey of Manufactures.
[2] Source: Census of Manufactures.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Nathaniel Shelton, (301) 763-1728.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

C 3.158:

Table 2. VALUE OF SHIPMENTS OF MOLDED, EXTRUDED, AND LATHE CUT RUBBER MECHANICAL GOODS: 1988 and 1987

(Millions of dollars)

Product code	Product description	1988	1987
	Molded, extruded, and lathe cut mechanical rubber goods	3,738.6	r3,373.5
306	Molded rubber mechanical goods	2,790.2	2,489.8
30611 01	Automotive	1,414.7	1,255.7
30612 01	Transportation, other than automotive (including recreational vehicles and equipment)	220.0	204.0
30612 02	Off highway machinery and equipment (including construction, farm, mining, lawn and garden, but not including tires)	186.5	192.8
30613 01	Appliances, household, and commercial (gas and electric)	160.6	144.1
30613 02	Oil and gas field machinery and equipment	79.0	r59.1
30613 09	Other molded goods	729.4	r634.1
306	Extruded and lathe cut mechanical rubber goods	917.9	r856.2
	Extrusions	804.4	r753.0
30614 01	Automotive, except tubing	400.7	r383.5
30615 01	Appliances, household, and commercial (gas and electric)	90.9	r87.9
	Tubing (not reinforced, including mandrel formed)	170.9	r144.0
30615 02	Automotive	74.0	66.0
30615 03	Other (including medical and surgical)	96.9	r78.0
30615 09	Other extrusions (including small rolls for copy machines, typewriters, etc.)	141.9	r137.6
	Lathe cut	113.5	r103.2
30616 01	Automotive (transportation, including on and off the road; gasoline and diesel equipment)	54.6	r45.7
30617 09	Other	58.9	r57.5
30610 --	Molded, extruded, and lathe cut mechanical rubber goods, n.s.k.	30.5	27.5

N.s.k. Not specified by kind. rRevised by 5 percent or more from previously published figures.

DESCRIPTION OF SURVEY

Scope of Survey. This survey covers all manufacturers of molded, extruded, and lathe cut rubber mechanical goods in the United States.

Survey Methodology. The statistics in this publication were collected by mail on Bureau of the Census annual Form MA30C, Rubber Mechanical Goods. The survey panel includes all known producers of rubber mechanical goods, approximately 300 establishments.

Reliability of Data. Survey error may result from several sources: (1) inability to obtain information about all cases in the survey; (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data obtained; and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail logic edits. Missing figures are imputed based on yearly movements shown by reporting firms. Imputation generally is limited to a maximum of 20 percent for any one data cell. Figures with imputation rates greater than 20 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is not precisely known, but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 20 percent should be used with caution.

Revisions to Previous Period Data. Statistics for previous years may be revised as the result of corrected data from respondents, late reports for which imputations were made as described above, or other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Adjustment for Price Change. All dollar figures included in this publication are in current dollars; i.e., they have not been adjusted for price change.

EXPLANATION OF TERMS

Quantity and Value of Shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Rubber. Includes products made from natural, synthetic, or reclaimed rubber.

HISTORICAL NOTE

Data on mechanical rubber goods were collected in the Current Industrial Reports Series for the first time in 1985. Historical data may be obtained from the census of manufactures and annual survey of manufactures available at your local Federal Depository Library. A list of these libraries may be obtained from the Bureau of the Census regional offices:

Office	Telephone
Atlanta, Georgia	(404) 347-2271
Boston, Massachusetts	(617) 223-2327
Charlotte, North Carolina	(704) 371-6142
Chicago, Illinois	(312) 353-6251
Dallas, Texas	(214) 767-0621
Denver, Colorado	(303) 236-2200
Detroit, Michigan	(313) 226-7742
Kansas City, Kansas	(816) 374-4601
Los Angeles, California	(213) 209-6616
New York, New York	(212) 264-3860
Philadelphia, Pennsylvania	(215) 597-4920
Seattle, Washington	(206) 442-7828

Historical data are also available on microfiche. For further information contact the Bureau of the Census, Data User Services Division, (301) 763-4100.

RELATED REPORTS

The Bureau of the Census publishes the following related reports:

Series	Frequency	Title
Current Industrial Reports		
MA30A	Annually	*Rubber: Production, Shipments, and Inventories*
MA30B	Annually	*Rubber and Plastics Belts and Belting*

U.S. Department of Commerce
BUREAU OF THE CENSUS
Washington, D.C. 20233

Official Business
Penalty for Private Use, $300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
CENSUS
PERMIT No. G–58

Series	Frequency	Title
Other Industry Reports		
M3-1	Monthly	*Manufacturers' Shipments, Inventories, and Orders*
(AS)	Annually	Annual Survey of Manufactures (ASM)
(MC)	Quinquennially	Census of Manufactures

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report MA30C	Nathaniel Shelton	(301) 763-1728
Classification Systems Comparability	Francis McCormick (ESD)	(301) 763-1935
Census/ASM	Kenneth Hansen	(301) 763-7304
International Trade Administration	Ray Prat	(202) 377-0128
To order a Current Industrial Report	Superintendent of Documents (GPO)	(202) 783-3238
To subscribe to a Census Bureau publication	Superintendent of Documents (GPO)	(202) 275-3054

INDUSTRY FINANCING

This survey is funded by the Rubber Manufacturers Association.

ACKNOWLEDGMENTS

This report was prepared in the Industry Division, Bureau of the Census, under the direction of Tom Flood, Chief, Current Nondurables Branch, and Robert Reinard, Chief, Chemical and Wood Products Section. Nathaniel Shelton was directly responsible for the review of the data and preparation of the report. Gaylord E. Worden, Chief of the Division, and Robert N. Tinari, Assistant Chief for Current Industrial Reports, provided overall direction and coordination to this project.